

IN THE CLAIMS:

Claims 1-33 are pending, claims 1-4, and 30-33 have been amended and claim 34 has been added.

1. (Currently Amended) Recording device for recording an image information, characterized by the fact that

the recording device has one or more media for creating one or more white light spots, said light spots are independent of the illumination conditions of an object from which the image is taken and have with known spectral intensity distribution and/or chromaticity coordinates and/or brightness, said one or more media for creating one or more light spots is positioned in said recording device and said light spots which are recorded at the same time as a picture is taken by means of a recording medium positioned in or capable being positioned in a the camera recording device.

2. (Currently amended) Recording device according to claim 1, characterized by the fact that a the light spots signal has have wavelengths in the visual range or in the range of shorter wavelengths.

3. (Currently amended) Recording device according to claim 1, characterized by the fact that a the light spots signal consists of white light.

4. (Currently amended) Recording device according to claim 1, characterized by the fact that by means of light-signal-creating media, several separate light signals with respective known chromaticity chromatically coordinates that can be recorded by the recording medium can be created.

5. (Previously presented) Recording device according to claim 4, characterized by the fact that several spatially and/or spectrally separate light signals can be created.

6. (Previously presented) Recording device according to claim 4, characterized by the fact that by means of the light-signal-creating media, a red, a green, and a blue light signal can be created.

7. (Previously presented) Recording device according to claim 6, characterized by the fact that the red, the green and the blue light signals together produce white light.

8. (Previously presented) Recording device according to claim 4, characterized by the fact that by means of the light-signal-creating media, a light signal complementary to red, a light signal complementary to green and a light signal complementary to blue can be created.

9. (Previously presented) Recording device according to claim 4, characterized by the fact that by means of the light-signal-creating media, light signals can be created that in their central wavelength lie respectively between the spectral primary sensitivities of the recording medium/camera.

10. (Previously presented) Recording device according to claim 1, characterized by the fact that the device is an analog or digital photo camera, an analog or digital movie camera, or a TV camera.

11. (Previously presented) Recording device according to claim 1, characterized by the fact that light-signal-creating media are executed in such a manner that a light signal is characterized by its brightness.

12. (Previously presented) Recording device according to claim 11, characterized by the fact that the light-signal-creating media are executed in such manner that two or more separate light signals having different brightness can be created.

13. (Previously presented) Recording device according to claim 12, characterized by the fact that the light signals include white light of differing brightness.

14. (Previously presented) Recording device according to claim 1, characterized by the fact that the camera or recording medium is executed in such a manner that the image information is recorded in several spectral ranges.

15. (Previously presented) Recording device according to claim 14, characterized by the fact that the image formation is recorded in the three spectral ranges of red, green, and blue, or complementary ranges, or between the blue/green and green/red range or ranges complementary thereto, and the light-signal-creating media are executed in such manner that the light signal can be recorded in each of these spectral ranges.

16. (Previously presented) Recording device according to claim 1, characterized by the fact that the image information can be recorded as a black-and-white image and by means of the light-signal-creating media at least two white light signals of differing brightness can be created.

17. (Previously presented) Recording device according to claim 1, characterized by the fact that the light-signal-creating media include light-emitting diodes, incandescent lamps, laser diodes, fluorescent diodes, luminance diodes, glow lamps, or other light media.

18. (Previously presented) Recording device according to claim 1, characterized by the fact that light-signal-creating media have one or more chromaticity and/or intensity filters positioned between the lighting medium and the recording medium.

19. (Previously presented) Process for reconstructing an image information recorded on a recording medium, characterized by the fact that the image is reconstructed in such manner that the spectral intensity distribution

and/or the chromaticity coordinates and/or brightness of a light signal information recorded on the recording medium and reconstructed correspond to that of one or more white light spots generated by one or more media for generation of said white light spots on the recording medium at the same time as a picture is or to that of a complementary light signal or in such manner that the divergence between the light signal information and the white light spot lies within a tolerance range or is minimized.

20.(Previously presented) Process for calibrating an image information recorded on a recording medium, characterized by the fact that

the divergence between the reconstructed light signal to one or more white light spots generated by one or more media for generation of said white light spots on the recording medium at the same time as a picture is taken or to a complementary light signal is recorded parametrically and that these parameters are processed as calibration parameters for further image reconstruction and/or image processing.

21. (Original) Process according to claim 20, characterized by the fact that the calibration parameters are used to minimize the divergence of the reconstructed light signal from the camera-created light signal or the light signal complementary thereto in the image reconstruction.

22. (Previously presented) Recording device according to claim 1, comprising a camera (4) with film (2a) or an electronic device (2b) positioned within the camera (4) as recording media,

an imaging or camera lens (3) positioned in front of an opening into the camera (4) and arranged to create an image (8) of an object (7) outside the camera (4) upon the recording media (2a, 2b), and

a light-signal-creating element (1) positioned either in front of or behind the recording media (2a, 2b) within the camera (4).

23. (Previously presented) Recording device according to claim 22, wherein the recording medium is film (2a), the light-signal-creating element (1) is positioned in front of the film (2a), and additionally comprising

an imaging lens (6) for the light-signal-creating element (1) and positioned between the same (1) and film (2a).

24. (Previously presented) Recording device according to claim 1, wherein the recording media is a film (3) comprising

an image area (2), and

recorded/developed light signal-points of a light-signal-creating element for white light (1a), white light having different intensity values (1b) or white light split in spatial separated RGB-points (1c).

25.(Previously presented) Recording device according to claim 22, wherein the recording media is a film (3) comprising

an image area (2), and

recorded/developed light signal-points of a light-signal-creating element for white light (1a), white light having different intensity values (1b) or white light split in spatial separated RGB-points (1c).

26.(Previously presented) Recording device according to claim 23, wherein the recording media is a film (3) comprising

an image area (2), and

recorded/developed light signal-points of a light-signal-creating element for white

light (1a), white light having different intensity values (1b) or white light split in spatial separated RGB-points (1c).

27.(Previously presented) Recording device according to claim 1, wherein the media generate a light signal with known spectral intensity distribution or chromaticity coordinates, this light signal being recorded on the recording medium in the camera and thus creating a reference signal by which the recording is calibrated, such that reproduction true to an original is possible.

28.(Previously presented) Recording device according to Claim 27, structured and arranged to take into account at least one of (i) layers of color in the recording medium having aged and possessing reduced sensitivity and (ii) compensating for different temperature.

29.(Previously presented) Recording device according to Claim 1, structured and arranged to take into account at least one of (i) layers of color in the recording medium having aged and possessing reduced sensitivity and (ii) compensating for different temperature.

30.(Currently amended) Recording device according to Claim 29, structured and arranged such that upon development, spectral range of film is exposed until the white light spot is appropriately white upon the recorded image, to thereby reliably reproduce reproduction of a photographed scene independent of limited or changing sensitivities of film layers and allow a film possessing limited sensitivity to be exposed longer.

31.(Currently amended) Recording device according to Claim 28, structured and arranged such that upon development, spectral range of film is exposed until the white light spot is appropriately white upon the recorded image, to thereby reliably reproduce

~~reproduction of a photographed scene independent of limited or changing sensitivities of film layers and allow a film possessing limited sensitivity to be exposed longer.~~

32.(Currently amended) Recording device according to Claim 27, structured and arranged such that upon development, spectral range of film is exposed until the white light spot is appropriately white upon the recorded image, to thereby reliably reproduce reproduction of a photographed scene independent of limited or changing sensitivities of film layers and allow a film possessing limited sensitivity to be exposed longer.

33.(Currently amended) Recording device according to Claim 1, structured and arranged such that upon development, spectral range of film is exposed until the white light spot is appropriately white upon the recorded image, to thereby reliably reproduce reproduction of a photographed scene independent of limited or changing sensitivities of film layers and allow a film possessing limited sensitivity to be exposed longer.

34. (New) A recording device for recording image information on a recording medium, characterized in that

the recording device comprises one or more light sources for creating and emitting light signals, which light signals are independent of the illumination conditions of the object from which the image is taken and which light signals have known spectral intensity distribution and/or chromaticity coordinates and/or brightness, wherein said light sources are located in the camera such that said light signals which are emitted from the light sources are recorded on said recording medium positioned in the recording device so that the light signal as well as the image information are recorded on the same recording medium.